

Byron Highway / Byer Road Safety Improvements

MTC Air Quality Conformity
Task Force Meeting

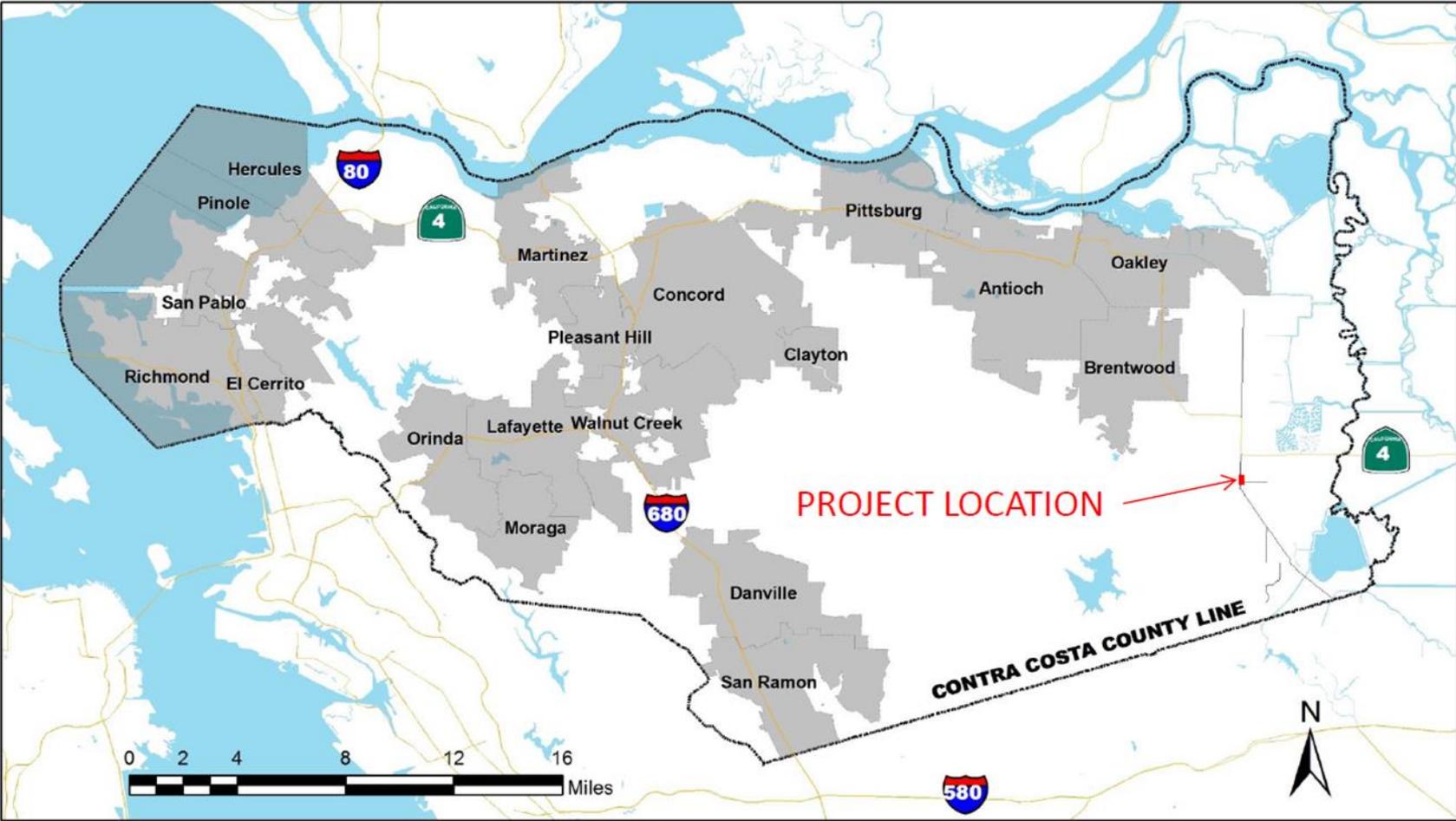
May 25, 2017

Contra Costa County Public Works Department

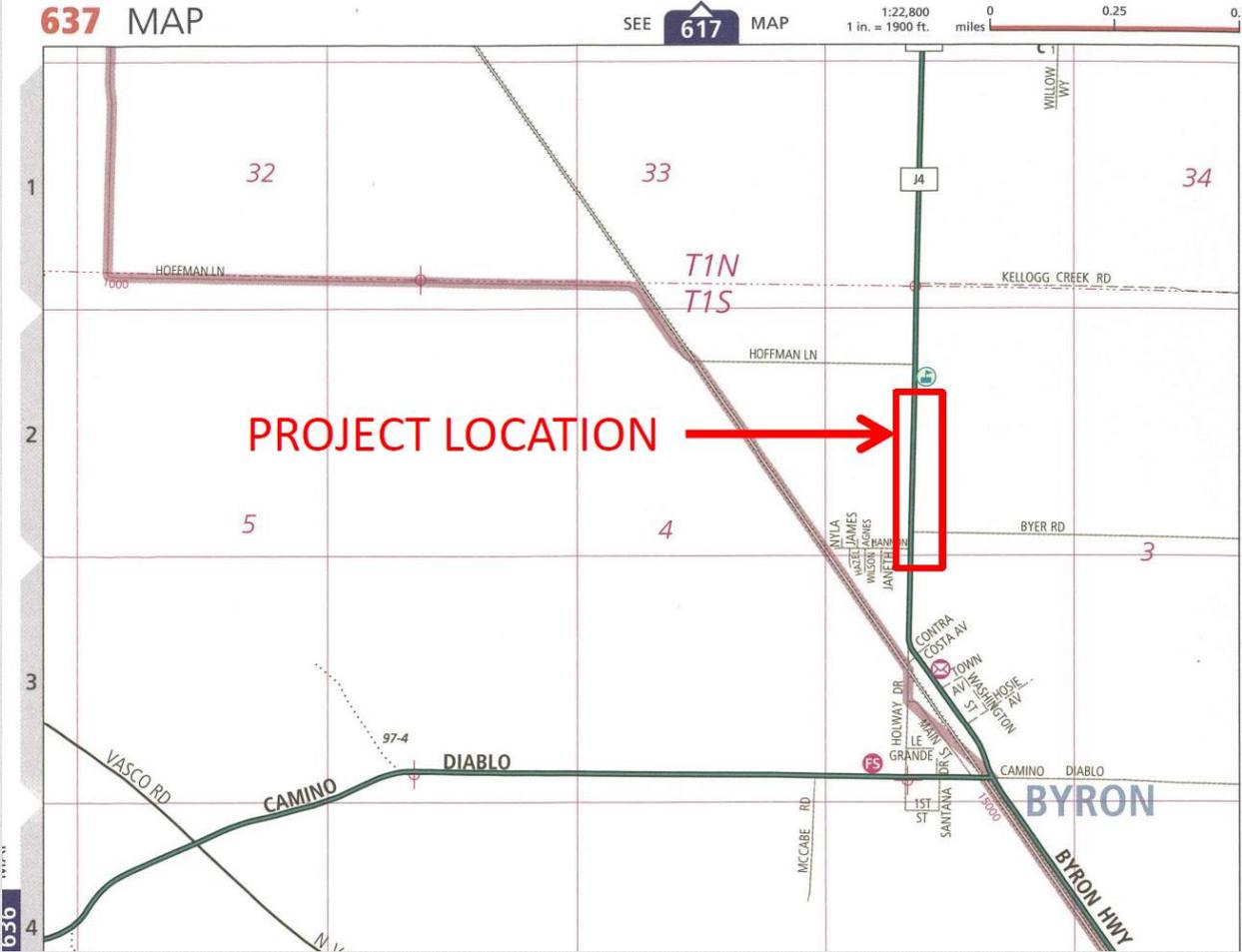
Purpose and Need

- This project will install the following:
 - Left turn pocket on southbound Byron Highway onto Byer Road
 - Two-way left turn lane along Byron Highway and,
 - Wider paved shoulders along Byron Highway
- These traffic safety countermeasures will improve the safety of drivers along Byron Highway, a principal arterial, and also improve the traffic circulation along the frontage of the middle school.

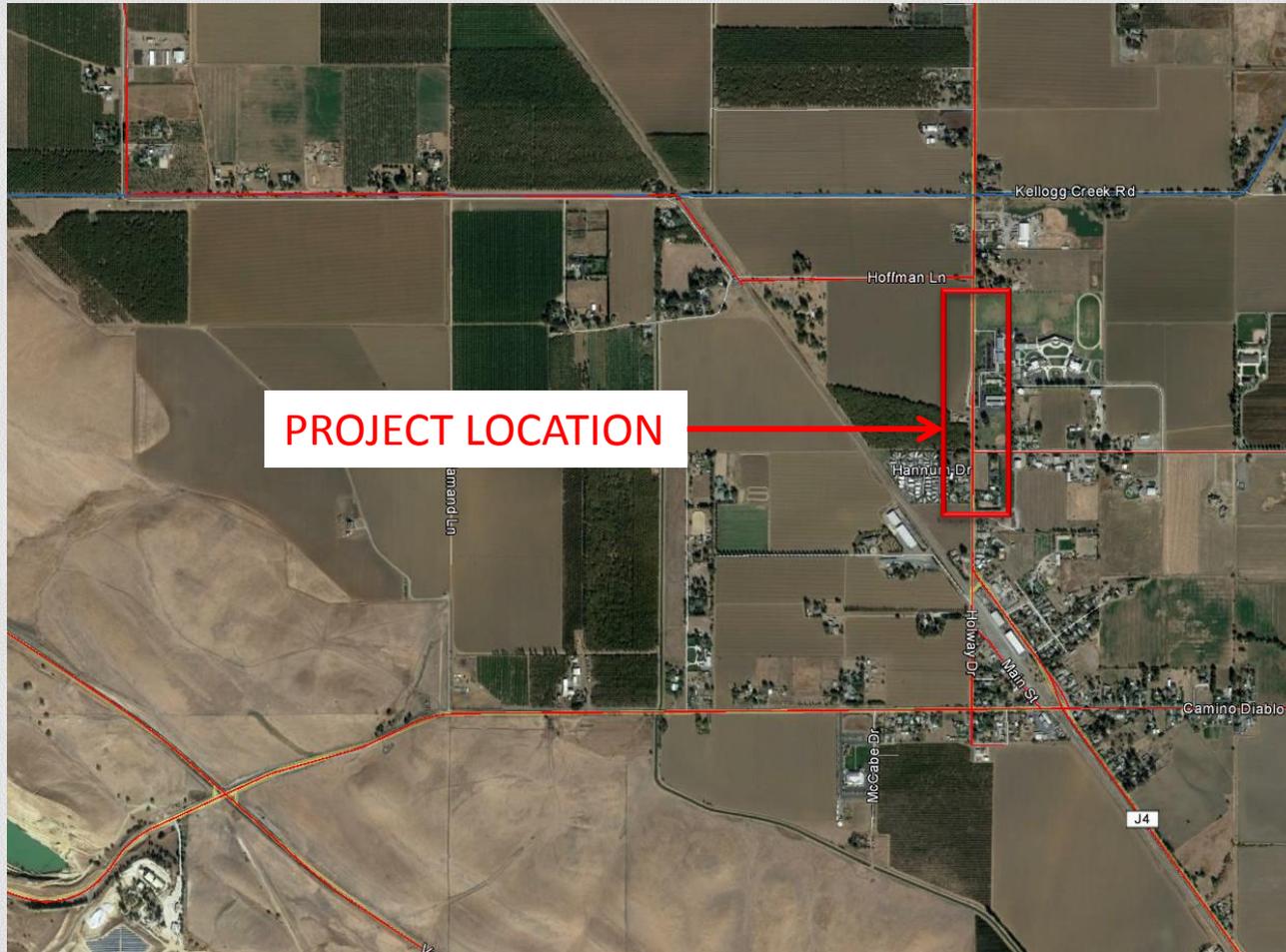
Project Location



Project Location



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Project Description

- Project Length: 2000 feet of Byron Highway
- Three Main HSIP Counter Measures to be constructed:
 - Dedicated left turn pocket at Byer Road
 - Two-way left turn lane, and
 - Wider paved shoulders.
- Resulting Cross Section: 6 feet wide shoulders on both sides, two 12 feet wide travel lanes, and a 12 feet wide two-way left turn lane/left turn pocket
- Approximately 9800 square feet will need to be acquired along the school's frontage.
- Utility coordination will be conducted for relocation of overhead lines.

Opening Year (2014)

The intersection LOS of Byron Highway and Byer Road is the following for existing 2014 traffic counts:

<u>Intersection</u>	<u>AM Peak Hour (2014)</u>	<u>PM Peak Hour (2014)</u>
Byron Hwy/Byer Road	No Build – LOS B	No Build – LOS C
	Build – LOS A	Build – LOS A

The existing ADTs on Byron Highway and Byer Road are approximately 12,000 vehicles per day and 2,300 vehicles per day, respectively. Byron Highway serves as the principal arterial Between Tracy/Mountain House in San Joaquin County to Brentwood in east Contra Costa County.

About 8.4% (485 vehicles in 2013) of the ADT on Byron Highway is due to truck traffic. This accounts for buses, trucks and tractor trailers. The existing number of trucks and truck AADT are not expected to change as a result of this project.

Design Year (2040)

The intersection LOS of Byron Highway and Byer Road is the following for the Design Year (2040):

<u>Intersection</u>	<u>AM Peak Hour (2040)</u>	<u>PM Peak Hour (2040)</u>
Byron Hwy/Byer Road	No Build – LOS B	No Build – LOS C
	Build – LOS A	Build – LOS A

The Regional Transportation Horizon (design) year is 2040 using the CCTA travel demand model. However this travel demand model assumes construction of State Route 239 which significantly decreases the traffic volumes on Byron Highway and Byer Road in 2040. Therefore, the conservative approach would be to assume that the intersection will maintain the same LOS as shown above and the 2040 ADT will be same as existing.

About 8.4% of the ADT on Byron Highway is due to truck traffic.

Project Schedule

	PRELIM. ENGINEERING /ENVIRONMEN TAL	ENGINEERING	RIGHT OF WAY	CONSTRUCTION
START	2/1/2017	6/2/2017	11/2/2018	12/31/2019
END	11/1/2018	8/1/2019	5/1/2019	6/30/2021

Conclusions

- The project does not generate new vehicle trips, so there will be no increase in traffic volumes. Therefore, this project does not change the percentage of heavy trucks passing through the intersection.
- This project is a safety project to improve the traffic circulation on the principal arterial, localized to the adjacent middle school in a rural area of east Contra Costa County.
- Intersection at LOS C for no build scenario and will improve to LOS A for build scenario.
- No project changes to land use that would affect diesel traffic percentage.
- This project does not include or expand an existing bus or rail terminal.
- Based on the project information provided, we believe that it should not be considered a project of air quality concern and, therefore, should not be required to complete PM2.5 hot-spot analysis for project-level conformity determination.